REMARKS

Claim 1 is amended herein to clarify the -O-CO- group in formulas (1) and (2) and to correct minor informalities. The structural units represented by formulas (1) and (2) are obtained by reaction of each diol in each dihydroxy compound represented by the formulas (3) and (4) and a carbonic acid diester and have reaction residues.

Claim 2 is also amended to correct minor informalities.

No new matter is presented.

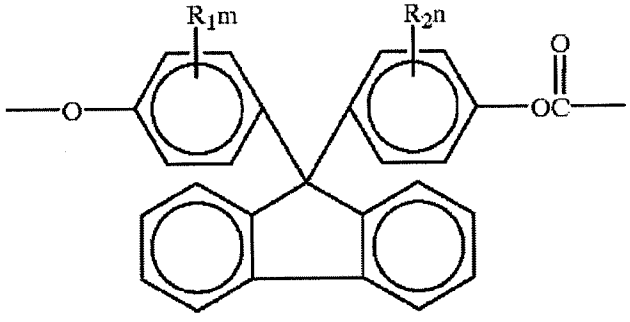
I. Response to rejection of claims 1-3 under 35 U.S.C. § 102(b)

At page 2 of the Action, claims 1-3 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 6,355,768 ("the '768 patent").

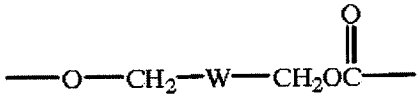
(1) U.S.P. 6,355,768

U.S.P. 6,355,768 discloses a polycarbonate resin consisting essentially of structural units of the structural formula (1) and the structural formula (2). (Abstract, claim 1).

(1)



(2)



The structural units represented by formulas (1) and (2) of U.S.P. 6,355,768 are obtained by the reaction of each diol group in each dihydroxy compound represented by formulas (4) and (5) and a carbonic acid diester (col. 3, lines 10 to 38, claim 6). The structural units represented by formulas (1) and (2) have both an –O– group and an –O–CO– group as reaction residues.

In contrast, the structural units represented by formulas (1) and (2) as recited in present claim 1 are obtained by reaction of an ether diol group having an $-[X-O]_m-$ group and an $-[O-X]_n-$ group represented by formula (3), a diol group represented by formula (4) and a carbonic acid diester and have both an $-O-[X-O]_m-$ group and an $-[O-X]_n-O-CO-$ group as reaction residues represented by formula (1) and furthermore both an –O– group and an –O–CO– group as reaction residues represented by formula (2).

X in the $-[X-O]_m-$ group and in the $-[O-X]_n-$ group is an alkylene group having 2 to 6 carbon atoms, a cycloalkylene group having 6 to 10 carbon atoms or an arylene group having 6 to 10 carbon atoms, which may be branched, and n and m, each independently, are an integer of 1 to 5.

The structural unit represented by formula (1) in U.S.P. 6,355,768 has neither an ether group $-[X-O]_m-$ nor an $-[O-X]_n-$ group of formula (1) of the present invention as recited in claim 1.

Further, in the process for producing the polycarbonate resin of U.S.P. 6,355,768, the aromatic dihydroxy compound as a reactant represented by the formula (4) has neither an ether group $-[X-O]_m-$ nor an $-[O-X]_n-$ group of formula (3) of the present invention as recited in claim 2.

Therefore, the polycarbonate copolymer of the present invention is quite different from the polycarbonate resin of U.S.P. 6,355,768. Further, the process for producing the

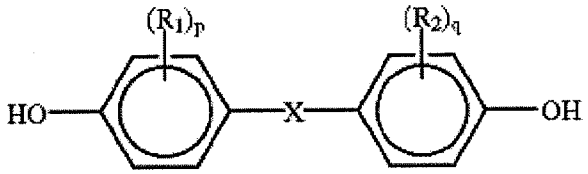
polycarbonate copolymer of the present invention is quite different from the process for producing the polycarbonate resin of U.S.P. 6,355,768. For at least these reasons the present claims are not anticipated by U.S.P. 6,355,768.

The Examiner does not specifically set forth a basis for asserting that U.S.P. 6,355,768 anticipates claim 2, which recites a process for making the copolymer of claim 1. As stated above, U.S.P. 6,355,768 does not disclose a copolymer comprising a structural unit represented by formula (1) and a structural unit represented by formula (2) as recited in claim 1, much less a method for making it comprising a step of reacting the dihydroxy compound of formula (3) with a diol as recited in present claim 2. Thus, U.S.P. 6,355,768 does not anticipate present claim 2.

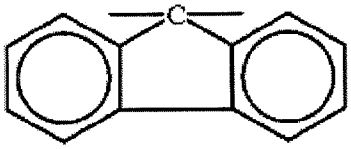
At page 3 of the Action, the Examiner refers to U.S.P. 6,316,576 as disclosing a polycarbonate copolymer prepared by dihydroxy compounds and at page 4, the Examiner refers to U.S.P. 6,376,641 as disclosing a process for producing an aromatic-aliphatic copolycarbonate and a process for producing the same with respect to claims 2 and 3. It is not entirely clear whether the Examiner intended to make separate §102 rejections based on these additional references or whether the Examiner intended to rely on these references in conjunction with the U.S.P. 6,355,768 in support of the anticipation rejection of claims 2 and 3. However, Applicants submit that neither U.S.P. 6,316,576 nor U.S.P. 6,376,641 identically discloses all elements of the present claims for the reasons set forth below. Additionally, if the Examiner intended to cite U.S.P. 6,316,576 and U.S.P. 6,376,641 to be combined with U.S.P. 6,355,768, such a combination is improper for an anticipation rejection since all elements of the claim must be taught by a single reference for anticipation.

(2) U.S.P. 6,316,576

U.S.P. 6,316,576 discloses a polycarbonate resin obtainable by reaction of pentacyclopentadecanedimethanol, an aromatic dihydroxy compound represented by following formula (1) and a carbonic acid diester (col. 2, lines 1 to 42).



wherein x may be

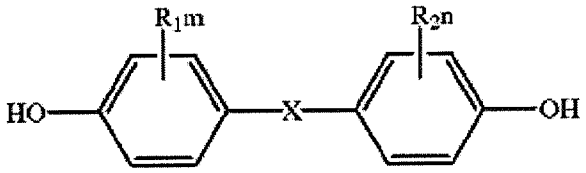


The aromatic dihydroxy compound represented by the formula (1) has a diol group. However, the aromatic dihydroxy compound has neither an ether group $-[X-O]_m-$ nor an $-[O-X]_n-$ group as in formula (1) of the present invention.

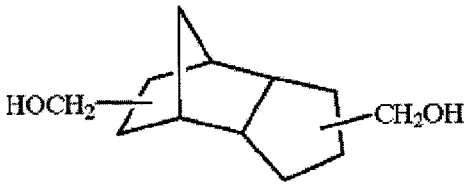
Therefore, the process for producing the polycarbonate copolymer of the present invention is quite different from the process for producing the polycarbonate resin of U.S.P 6,316,576.

(3) U.S.P. 6,376,641

U.S.P. 6,376,641 discloses a process for producing an aromatic-aliphatic copolycarbonate comprising polycondensing at least one aromatic dihydroxy compound represented by formula (III):



a tricycle ($5.2.1.0^{2.6}$) decanedimethanol represented by the following formula (IV)



and a carbonic acid diester.

The aromatic dihydroxy compound represented by formula (III) has a diol group. However, the aromatic dihydroxy compound has neither an ether group $-[X\text{-}O]_m-$ nor an $-[O\text{–}X]_n-$ group as in formula (1) of claim 1 of the present invention.

Therefore, the process for producing the polycarbonate copolymer of the present invention is quite different from the process for producing the polycarbonate resin of U.S.P. 6,376,641.

The Examiner states:

> Each of the reference discloses a copolymer of polycarbonate comprising a units represented by the formulas as disclosed. Since the disclosed amounts are expressed differently than the claimed mol% and molar ratio and thus may be distinct from those claimed, it is incumbent upon applicant(s) to establish that they are in fact different and whether such difference is unobvious." (page 5 of the Action).

However, as described above, the polycarbonate copolymer is quite different from each polycarbonate resin disclosed in the above references and is not anticipated by any of the cited references.

Further, the object of the present invention is to provide a polycarbonate copolymer in which the occurrence of birefringence is rare, even if it is subjected to operations such as molding and stretching.

As shown in claim 1, the polycarbonate copolymer of the present invention comprises 30 to 70 mol% of a structural unit represented by the formula (1), and 70 to 30 mol% of a structural unit represented by the formula (2).

Each birefringence after stretching of polycarbonate copolymers obtained in Examples 1-6 and Comparative Examples 1-3 was measured. The measurement results are shown in Table 1.

As shown in Table 1, each range of the claimed mol% exhibits criticality for birefringence after stretching in each upper limit value and lower limit value. None of the cited references teaches nor suggests such criticality. Thus, the present invention is neither anticipated nor rendered obvious over the cited references, whether taken alone or in combination.

Accordingly, Applicants respectfully request withdrawal of the §102 rejection.

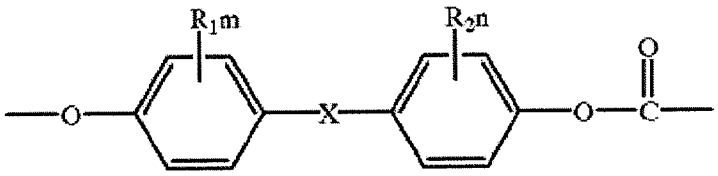
II. Response to rejection of Claims 1-4 under 35 U.S.C. §103(a)

Claims 1-4 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over USP 6,355,768; or USP 6,316,576; or USP 6,359,103; and USP 6,316,576; each in view of USP 6,376,641.

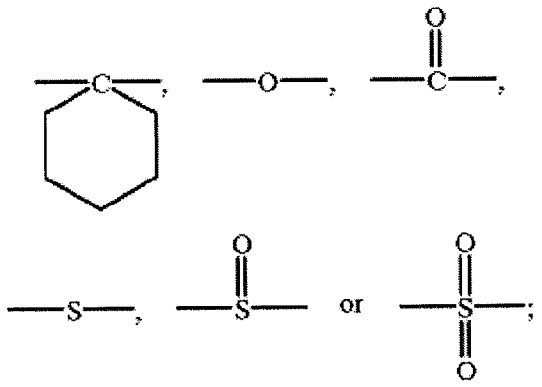
As described above, the polycarbonate copolymer of the present invention is quite different from each polycarbonate disclosed in U.S.P. 6,355,768, U.S.P. 6,316,576 and U.S.P. 6,376,641. The process for producing the polycarbonate copolymer of the present invention is

also quite different from each process disclosed in the above references because the dihydroxy compound (ether diol) represented by the formula (3) of the present invention is not used in the above references.

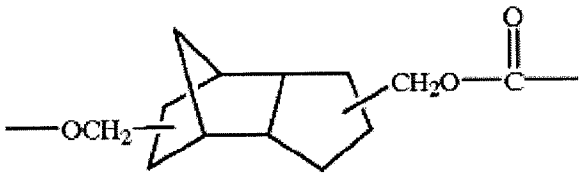
U.S.P. 6,359,103 discloses an aromatic-aliphatic copolycarbonate comprising a repeating unit represented by the following formula (I):



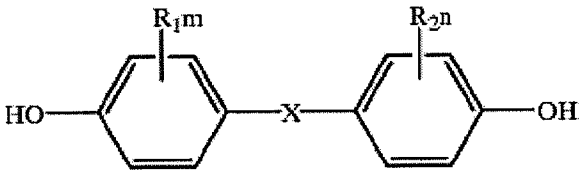
wherein X represents



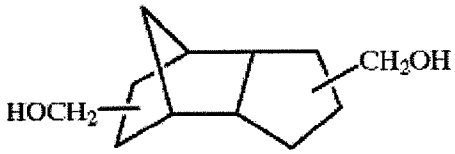
and a repeating unit represented by the following formula (II):



The reference discloses an aromatic-aliphatic copolycarbonate comprising polycondensing at least one aromatic dihydroxy compound represented by formula (III):



a tricycle ($5.2.1.0^{2,6}$ decanedimethanol represented by formula (IV) below,



and a carbonic acid diester.

U.S.P. 6,359,103 also does not disclose the structural unit having ether groups represented by the formula (2) of the present invention. Further, in the process for producing the aromatic-aliphatic copolycarbonate in U.S.P. 6,359,103, the dihydroxy compound (ether diol) represented by the formula (3) of the present invention is not used.

Therefore, even if the above references are combined, the present invention is not reached. Thus, the present invention is not rendered obvious by the cited references whether taken alone or in combination.

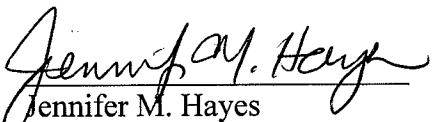
Accordingly, Applicants respectfully request withdrawal of the rejection.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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Date: July 30, 2008